



CLAIMS

1. Anchor with a fluke with a longitudinal axis which extends from the rear end of the fluke to its front end and with connection means for connecting the fluke with the lower end of an anchor line, which connecting means comprise an anchor shank, the connecting means comprising at least one coupling with two cooperating coupling members, the first of which being situated on the fluke side of the coupling and being directly or indirectly connected to the fluke in order to follow its movement and the second being situated on the anchor line side of the coupling and being directly or indirectly connected to the anchor line, the anchor furthermore comprising operation means for the coupling which means are activated by swinging the anchor line held taut in order to enlarge its angle with respect to the longitudinal axis of the fluke and then to mutually displace the first and second coupling member from a coupling position to a decoupling position in which the second coupling member is released or emerges from coupling engagement with the first coupling member, the second coupling member comprising a rigid coupling hook which can be released by means of said manipulation of the anchor line, the first coupling member comprising a pin about which the coupling hook rotatingly engages, wherein the coupling hook has a pin receiving hook space its opening facing in the direction of swinging of the anchor line during its movement towards the decoupling position, the operation means being adapted for having the hook pivot about an axis, which is parallel to and at a distance from the pin and located at the side of the pin facing away from the fluke, from the coupling position to a release position.

02 2. Anchor according to claim 1, the coupling being adapted such that after release from the coupling hook the latter can be entirely lifted away from the pin by pulling the anchor line.

03 3. Anchor according to claim 1, the operation means being provided with means for urging away the coupling hook from the pin during said swinging movement of the anchor line.

04 93-1101 4. Anchor according to claim 1, the operation means comprising a first stopping face which is stationary with respect to the pin at least as long as the coupling hook and the pin are coupled to one another, and comprising a second stopping face on the hook integrated therewith, the first stopping face forming a limitation for the displacement of the second stopping face at pivoting the hook about the pin and therewith forming a fulcrum for the hook.

05 5. Anchor according to claim 4, the second stopping face being at the most 180 degrees in circumferential direction of the hook spaced from the end of the coupling hook.

6. Anchor according to claim 4, the pin being provided with a flattening at the side of the pin facing away from the hook opening.

7. Anchor according to claim 1, the connection means comprising a second permanent, latently present connection, ~~between parts of the anchor shank are connected by both coupling members,~~ which connection extends parallel to the coupling formed by the coupling members, and becomes active after releasing the coupling.

8. Anchor according to claim 7, the second connection mentioned being a cable or chain.

9. Anchor according to claim 7, the second connection mentioned being a rigid element which can be extended or folded out.

10. Anchor according to claim 9, the coupling hook being pivotably though permanently attached to an end of an elongated, rigid intermediate member by means of a second pin, which member at the other end by means of a third pin is pivotably connected to a part of the anchor which forms ^{rigid} a whole with the pin, which is situated between the second and the third pivot pin in the coupling position.

11. Anchor according to claim 10, the intermediate member comprising a longitudinal slot which is concentrically situated with respect to the pin and in which the second pin is able to slide until abutment, the abutment with the second pin subsequently forming a fulcrum for the coupling hook.

12. Anchor according to claim 10, the second pin being fixedly connected to the intermediate member and the hook pivoting about the second pin at uncoupling.

13. Anchor according to claim 1, wherein said shank has a lower end near the fluke, the pin forming part of the first coupling member being attached to the fluke and the coupling hook forming part of the second coupling member being attached to the lower end of the shank.

14. Anchor according to claim 13, the shank being connected to the fluke with at least a front and rear hinge connection spaced in the direction of the longitudinal axis, at least the front hinge connection being constructed as said coupling.

15. Anchor according to claim 14, the rear hinge connection also being constructed as said coupling.

16. Anchor according to claim 15, the coupling hook forming part of the second coupling member of the front hinge connection being a part of the operation means for the rear hinge connection.

17. Anchor according to claim 13, the operation means comprising a lever mechanism which is pivotably mounted on the anchor and being in contact with a portion

of the coupling hook which confines the pin forming part of the first coupling member in order to displace it with respect to said pin for releasing said portion.

18. Anchor according to claim 17, the shank being connected to the fluke with at least a front and rear hinge connections spaced in the direction of the longitudinal axis, at least the rear hinge connection being constructed as said coupling.

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19. Anchor according to claim 18, the lever mechanism extending from the rear hinge connection along the shank to an upper end thereof and being connected there for co-rotation with a shackle for an installation line.

20. Anchor according to claim 1, the coupling being situated between the shank and the anchor line.

21. Anchor according to claim 20, the shank being built of elongated elements which extend between the fluke and the anchor line, at least two elongated elements being pivotably attached with their lower ends to the fluke at positions spaced in longitudinal direction and being pivotably attached with their upper ends to a first rigid elongated coupling plate on spaced positions, a second rigid elongated coupling plate being hingably connected at one end of the first coupling plate and at a distance thereof forming the coupling with the first coupling plate.

22. Anchor according to claim 21, the hinge connection between the two coupling plates coinciding with the connection between the rear elongated element and the first coupling plate.

23. Anchor according to claim 20, the shank being provided at the top with a connection for an installation line and of a connection for a mooring or load line, the connection for the installation line being provided with the coupling and the operation means for the coupling being activated by pivoting the load line.

24. Anchor according to claim 23, the operation means comprising a lever mechanism, pivotably arranged on the shank and the first coupling member having a wedge confining the second coupling member being in contact with the lever mechanism in order to be displaced thereby with respect to the second coupling member for its releasing.

25. Anchor according to claim 20, the shank being rigid and the coupling being provided at the upper end of the shank, the anchor line further being connected with the shank on a location between the fluke and the upper end of the shank by means of a latently present extension.

26. Anchor according to claim 25, said location being at least almost perpendicularly located above the surface centre of gravity of the fluke.

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27. Anchor according to claim 25, the latently present extension being connected to the shank on said location by means of a second coupling.

28. Anchor according to claim 27, either the anchor line or the extension being connected to the upper end of the shank by means or a second latently present extension.

29. Anchor according to claim 1, the coupling and the operation means being adapted for uncoupling in a non-destructive manner.

30. Anchor according to claim 1, the pivoting of the anchor line for the uncoupling taking place by enlarging the forwardly opening angle between the anchor line and the longitudinal axis of the fluke.

31. Anchor according to claim 1, a resistance being included in the coupling in order to prevent unintended release when an uncontrolled swinging of the anchor line occurs.

32. (CANCELLED)

33. Method for uncoupling a coupling or lock in the connection between the fluke of an anchor and an anchor line, said fluke having a longitudinal axis, the anchor line being swung around in a tightened state in a direction with respect to the longitudinal

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axis of the fluke in which the angle included by the anchor line and the longitudinal axis is enlarged, wherein use is being made of said coupling or lock comprising a rigid hook rotatingly engaging about a pin for coupling, said hook being moved away from said pin in a direction counter to the direction of said swinging movement of said anchor line, thereby inducing the uncoupling.

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Anchor with a fluke with a longitudinal axis which extends from the rear end of the fluke to its front end and with connection means for connecting the fluke with the lower end of an anchor line, which connecting means comprise an anchor shank, the connecting means comprising at least one coupling with two cooperating coupling members, the first of which being situated on the fluke side of the coupling and being directly or indirectly connected to the fluke in order to follow its movement and the second being situated on the anchor line side of the coupling and being directly or indirectly connected to the anchor line, the anchor furthermore comprising operation means for the coupling which means are activated by swinging the anchor line held taut in order to enlarge its angle with respect to the longitudinal axis of the fluke and then to mutually displace the first and second coupling member from a coupling position to a decoupling position in which the second coupling member is released or emerges from coupling engagement with the first coupling member, the second coupling member comprising a rigid coupling hook which can be released by means of manipulation of the anchor line, the first coupling member comprising a pin about which the coupling hook engages, wherein the coupling hook has a pin receiving hook space, its opening facing in the direction of swinging of the anchor line during its movement towards the decoupling

position, the operation means being adapted for having the hook pivot about an axis, which is parallel to and at a distance from the pin, from the coupling position to a release position, wherein said hook and said anchor line are located on either side of said pivot axis.

33. Anchor according to claim 32, wherein the hook rotatably engages the pin for rotation thereabout.

34. Anchor with a fluke with a longitudinal axis which extends from the rear end of the fluke to its front end and with connection means for connecting the fluke with the lower end of an anchor line, which connection means comprise an anchor shank, the connection means comprising at least one coupling with two cooperating coupling members, the first of which being situated on the fluke side of the coupling and being directly or indirectly connected to the fluke in order to follow its movement and the second being situated on the anchor line side of the coupling and being directly or indirectly connected to the anchor line, the anchor furthermore comprising operation means for the coupling which means are activated by swinging the anchor line held taut in order to change its angle with respect to a longitudinal axis of the fluke and then to mutually displace the first and second coupling member from a coupling position to a position in which the second coupling member is released or emerges from coupling engagement with the first coupling member, the second coupling member comprising a rigid coupling hook which can be released by means of manipulation of the anchor line, the first coupling member comprising a pin about which the coupling hook engages, the

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operation means being adapted for having the rigid hook pivot about an axis, which is parallel to and at a distance from the pin, from the coupling position to a release position.
